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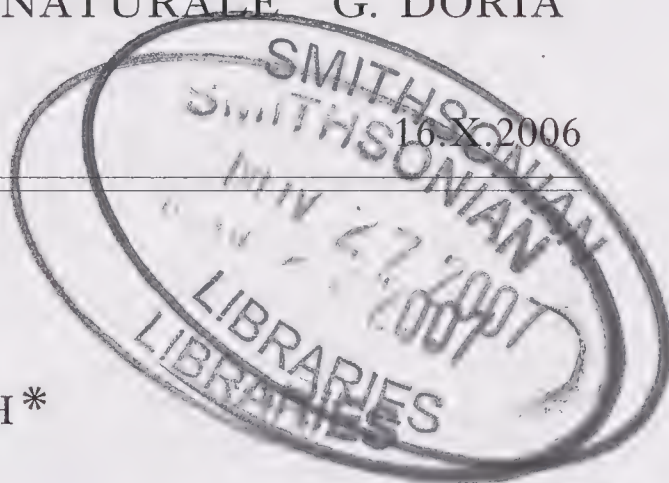
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SIGFRID INGRISCH*

TWO NEW SPECIES OF XIPHIDIOPSINI (ORTHOPTERA, TETTIGONIIDAE, MECONEMATINAE) FROM SUMATRA IN THE COLLECTION OF THE MUSEO CIVICO DI STORIA NATURALE "G. DORIA", GENOVA

Twenty-three species of Meconematinae were so far described from Sumatra: 20 Xiphidiopsini, 1 Meconematini and 2 species of *Glenophisis* Karny, 1926 (OTTE *et al.* 2005). Most of those species were described by KARNY (1924) from the Lampongs of South Sumatra (10 species plus one in KARNY 1927). Other descriptions come from REDTENBACHER (1891, 1 species), KÄSTNER (1932, 1933, 3 species), BEY-BIENKO (1971, 1 species), and GOROCHOV (1993, 1998, 2001a, 2001b, 2002, 5 species).

The collection of the Museo Civico di Storia Naturale "G. Doria" in Genoa holds a few specimens of Meconematinae from Sumatra that were already collected by E. Modigliani in 1890–1891. Identification of the specimens proved that they belong to one previously described and two undescribed species. The descriptions of the new species are given below. All types and other specimens are held in the Museo Civico di Storia Naturale "G. Doria", Genoa (MSNG).

The genera *Xiphidiopsis* Redtenbacher, 1891 and *Amytta* Karsch, 1888 formerly containing numerous species in South and East Asia were recently divided into several separate genera mainly by the work of GOROCHOV (1993, 1998). But taxonomy has still not

* Zoologisches Forschungsinstitut & Museum Alexander Koenig,
Adenauerallee 160, D- 53113 Bonn (Germany)

settled, and probably many species still remain in *Xiphidiopsis* that should be properly assigned to other genera.

***Kuzikus (Kuzikus) bicornis* n. sp.** (Figs. 1-11)

Holotype (♂): Indonesia: Sumatra, Si-Rambé, 2°19'N 99°13'E, 1.XII.1890-31.III.1891, leg. E. Modigliani (MSNG).



Figs 1-9: *Kuzikus (Kuzikus) bicornis* n. sp. male holotype (1-7) and female paratype (8-9): 1, pronotum and thoracic spiracles; 2, abdominal apex in apical view; 3, do. in lateral view; 4, do. in ventro-lateral view; 5, do. in ventral view; 6, last tergite and left cercus in dorso-lateral view; 7, phallus and subgenital plate in ventro-lateral view; 8, abdominal apex in dorsal view; 9, do. in lateral view. Abbreviations: 9th, ninth abdominal tergite; 10th, tenth abdominal tergite; as, auditory spiracle; ce, cercus; e, epiproct; ov, ovipositor; pa, paraproct; ph, phallus; pr, projection of tenth abdominal tergite; sg, subgenital plate; si, stigma; st, stylus.

Paratypes: 2 ♀♀, same data as holotype (MSNG).

Measurements (in mm). Body with wings: ♂ 22, ♀ 23-25; body without wings: ♂ 7.8, ♀ 7.7-10.0; pronotum: ♂ 3.2, ♀ 3.1-3.3; tegmen: ♂ 16.6, ♀ 19.3-20; hind wing projecting: ♂ 3.1, ♀ 2.7; hind femur: ♂ 9.4, ♀ 10.4-10.5; ovipositor: ♀ 8.6-8.9 mm.



Figs 10-12: Habitus of: 10, *Kuzikus (Kuzikus) bicornis* n. sp. male holotype; 11, do. female paratype; 12, *Pseudoteratura parallela* n. sp. male holotype.

Description. Head slightly hypognath. Maxillary palps with apical segment widened at apex and little longer than penulti-

mate segment (1.11:0.95 mm). Fastigium verticis conical; furrowed in midline; apex obtuse. Pronotum prolonged behind; almost without humeral sinus. Fore tibiae with open tympana on both sides. Hind wings reaching apical area of hind tibia. Tegmina shorter than hind wings.

Male. Stridulatory apparatus developed. Tenth abdominal tergite notched in middle with a pair of processes subfused over whole length, divided only by a furrow; apex faintly undulate with a small spinule at lateral angles. Cerci conical in basal third; divided before middle into two compressed branches: dorsal branch faintly curved and little widened before apex which is truncate to faintly concave; ventral branch bent ventrad in middle; apex as dorsal branch. Phallus with a large sclerite, little wider than subgenital plate, with nearly parallel margins near base, converging margins in apical half, and rounded apex; the whole plate gently curved; on dorsal [internal] surface with two projections: in centre and at apex. Subgenital plate conical, apex rounded; with a wide shallow median groove; with subapical styli on ventral surface.

Female. Tenth abdominal tergite divided in middle: epiproct very small, smaller than one paraproct. Subgenital plate semicircular with middle of apical margin faintly obtusely projecting. Ovipositor almost straight, only apical area faintly curved; apex acute.

Coloration. Light greyish brown; discoloured due to previous storage in alcohol. Vertex with a brown median band. Pronotum with a faint brown median band and with (male) or without (females) a large dark brown spot at apex. Tegmen with dorsal margin faintly infumate; median field with a row of round, brown spots, becoming less dark and scattered over several fields in apical third of tegmen.

Etymology. The name refers to the two dorsal projections of the phallus sclerite.

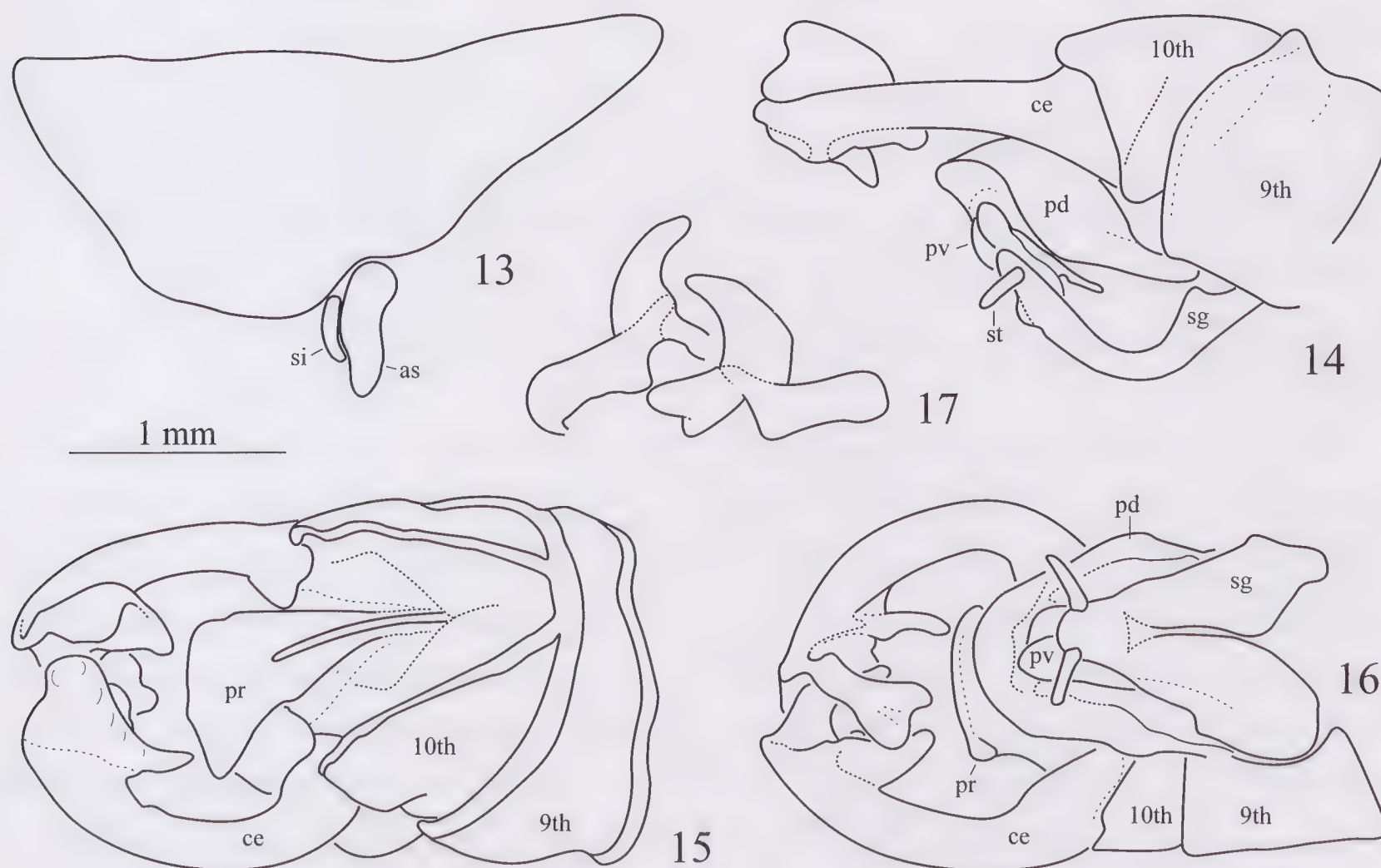
Discussion. The new species is combined with *Kuzikus* on base of the large processes of the tenth abdominal tergite of male in combination with the large phallus sclerite. It differs however from other species of the genus by the processes of the tenth abdominal tergite being fused and by the phallus sclerite bearing two dorsal projections instead of a single dorso-apical projection with modified apex. It may represent another undescribed subgenus. I leave this question until more species of the Xiphidiopsini formerly lumped in *Xiphidiopsis* are properly combined.

The main branching of the male cerci into three branches is similar to the situation in *Xiphidiopsis sumatrensis* Karny, 1924 and *X. punctata* Karny, 1924. From *X. sumatrensis*, the new species differs by the ventral branch of the cercus being as large as the central branch, not much smaller, and by the central branch being without complex apical modification. It also differs by the projection of the tenth abdominal tergite being wide instead of narrow and by the possession of large phallic sclerites. From *X. punctata*, *K. bicornis* differs by the shapes and relative length of all three cercus branches. Moreover the tenth abdominal tergite and the male phallic sclerites (as figured in KÄSTNER 1932) also differ between both species.

***Pseudoteratura parallela* n. sp.** (Figs. 12-17)

Holotype (♂): Indonesia: Sumatra, Si-Rambe, 2°19'N 99°13'E, 1.XII.1890-31.III.1891, leg. E. Modigliani (MSNG).

Measurements (of ♂ in mm). Body with wings: 20; body without wings: 9.8; pronotum: 3.2; tegmen: 15.9; hind wing projecting: 2.7; hind femur: 9.7.



Figs 13-17: *Pseudoteratura parallela* n. sp. male holotype: 13, pronotum and thoracic spiracles; 14, abdominal apex in lateral view; 15, do. in dorsal view; 16, do. in ventral view; 17, cerci in apical view. Abbreviations as in Figs 1-9, additional: pd, dorsal sclerite of phallus; pv, ventral sclerites of phallus.

Description. Head slightly hypognath. Maxillary palps with apical segment widened at apex and little longer than penultimate segment (0.86:0.63 mm). Fastigium verticis conical; shallowly furrowed in midline; apex obtuse. Pronotum prolonged behind; almost without humeral sinus. Fore tibiae with open tympana on both sides. Hind wings reaching apical area of hind tibia. Tegmina shorter than hind wings.

Male. Stridulatory apparatus developed. Tenth abdominal tergite widely divided until base. Epiproct large, triangularly widened towards apex; in basal half with a median carina; apical margin faintly undulate. Cerci curved; apico-internal area expanded to a large auricular process; concave side of process with two projections: a short obtuse in centre and a long compressed in ventro-central area widening at apex into two laterally compressed obtuse lobes and a short obtuse dorsal tubercle. Phallus with an unpaired dorsal and paired ventral sclerites; dorsal sclerite large, semicircular with sloping lateral margins which are subfused with lateral prolongation of ninth abdominal tergite; ventral sclerites dark brown, band-shaped, parallel, area in between setose. Subgenital plate elongate-conical; apex rounded; with a long deep basal furrow and long subapical styli.

Female unknown.

Coloration. Light greyish brown; discoloured due to previous storage in alcohol. Vertex and anterior two thirds of pronotum with a brown median band. Tegmen with hind (dorsal) margin infumate.

Etymology. Name refers to the paired ventral phallus sclerites.

Discussion. Previously only one species was included in *Pseudoteratura*: *P. sundaica* (Kästner, 1932), redescribed in GOROCHOV (1998). The new species differs by the epiproct being narrower at base and the apical lateral angles not spinose; the cerci being less strongly curved and with an apical auricular process instead of a narrow process in two-thirds of cercus length; the dorsal phallus sclerite has the apex rounded instead of with two spinose projections; and the phallus has the ventral sclerites paired instead of a single unpaired sclerite.

The shape of the cerci of *P. parallela* also resembles the situation in *Xiphidiopsis picta* Karny, 1924 from West Java. The shapes of the modified cercus apex differ however between both species.

Moreover, the new species differs from *X. picta* by the male epiproct which is triangularly widened towards apex, not parallel-sided with suddenly widened apex, and by the triangular instead of long and narrow subgenital plate. The male phallic sclerite probably also differs between both species, but this is described as "sub-anal plate not visible" in KARNY (1924).

***Decma (Decma) bolivari* (Karny, 1924)**

Material examined: 1 ♀, Indonesia: Sumatra, Pangherang-Pisang, 1.X.1890-31.III.1891, leg. E. Modigliani; 1 ♂, Si-Rambé, 1.XII.1890-31.III.1891, leg. E. Modigliani.

The species was already previously reported from several localities in Sumatra and the Malay Peninsula (KARNY 1924, 1926, KÄSTNER 1932, EBNER 1928).

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ABSTRACT

Two new species of Xiphidiopsini from Sumatra are described: *Kuzikus* (*Kuzikus*) *bicornis* n. sp. and *Pseudoteratura parallela* n. sp. Both species were collected by E. Modigliani in North Sumatra, Si-Rambé, between December 1890 and March 1891. The types are conserved in the Museo Civico di Storia Naturale "G. Doria", Genova.

RIASSUNTO

Due nuove specie di Xiphidiopsini (Orthoptera, Tettigoniidae, Meconemati-nae) di Sumatra nella collezione del Museo Civico di Storia Naturale "G. Doria" di Genova.

L'Autore descrive *Kuzikus* (*Kuzikus*) *bicornis* n. sp. e *Pseudoteratura parallela* n. sp., sulla base di esemplari raccolti da Elio Modigliani nella foresta di Si-Rambé (Sumatra settentrionale) nel periodo compreso tra dicembre 1890 e marzo 1891.